Amendments to the Specification:

Please replace the Abstract of the Disclosure in its entirety with the following paragraph:

Methods for using a length dispersion of an etalon to approximate target resonant frequencies. Length dispersion usage in the present invention includes, for example, determining the impact of a length dispersion of an etalon on resonant frequencies of the etalon and may involve, for example, selection of one or more of a refractive index step, a number of layers, and a layer thickness of one or both dielectric stacks of the etalon in consideration of length dispersion. A featured method comprises defining target resonant frequencies and selecting an etalon having resonant frequencies which approximate the target resonant frequencies wherein the selection of the etalon is made based at least in part in consideration of a length dispersion of the etalon.

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A method for using a length dispersion of an etalon, comprising:

defining a plurality of target resonant frequencies; and

selecting an etalon having a plurality of resonant frequencies which approximate the target resonant frequencies,

wherein the selection is made based at least in part in consideration of a length dispersion of the etalon.

Claim 2 (original): The method of claim 1, wherein the selection is made based at least in part in consideration of a length dispersion of a dielectric stack of the etalon.

Claim 3 (original): The method of claim 1, wherein the selection is made based at least in part in consideration of a length dispersion of a plurality of dielectric stacks of the etalon.

Claim 4 (original): The method of claim 1, wherein the target resonant frequencies comprise at least three periodic frequencies.

Claim 5 (original): The method of claim 1, wherein the target resonant frequencies comprise at least three quasi-periodic frequencies.

Claim 6 (original): A method for using a length dispersion of an etalon, comprising:

defining a plurality of target resonant frequencies;

determining a material dispersion for an etalon; and

selecting a length dispersion for the etalon suitable to cooperate with the material dispersion to produce a plurality of resonant frequencies which approximate the target resonant frequencies.

Claim 7 (original): The method of claim 6, wherein the selecting step comprises selecting a dielectric stack of the etalon.

Claim 8 (original): The method of claim 6, wherein the selecting step comprises selecting a refractive index step of a dielectric stack of the etalon.

Claim 9 (original): The method of claim 6, wherein the selecting step comprises selecting a number of layers of a dielectric stack of the etalon.

Claim 10 (original): The method of claim 6, wherein the selecting step comprises selecting a layer thickness of a dielectric stack of the etalon.

Claim 11 (original): The method of claim 6, wherein the selecting step comprises selecting a plurality of dielectric stacks of the etalon.

Claim 12 (original): The method of claim 6, wherein the target resonant frequencies comprise at least three periodic frequencies.

Claim 13 (original): The method of claim 6, wherein the target resonant frequencies comprise at least three quasi-periodic frequencies.

Claim 14 (cancelled)

Claim 15 (currently amended): A method for using a length dispersion of an etalon, comprising:

determining a length dispersion of an etalon;

~~The method of claim 14, further comprising~~ determining an impact of the length dispersion of the etalon on a plurality of resonant frequencies of the etalon; and

selecting the etalon for application in an optical system based at least in part on the length dispersion of the etalon.

Claim 16 (original): The method of claim 15, further comprising comparing the plurality of resonant frequencies of the etalon with a plurality of target resonant frequencies.

Claim 17 (currently amended): The method of claim ~~14~~15, wherein the length dispersion determination is based at least in part on a refractive index step of a dielectric stack of the etalon.

Claim 18 (currently amended): The method of claim ~~14~~15, wherein the length dispersion determination is based at least in part on a number of layers of a dielectric stack of the etalon.

Claim 19 (currently amended): The method of claim ~~14~~15, wherein the length dispersion determination is based at least in part on a thickness of layers of a dielectric stack of the etalon.

Claim 20 (original): A method for using a length dispersion of an etalon, comprising:

determining a length dispersion of an etalon;

determining an impact of the length dispersion of the etalon on a plurality of resonant frequencies of the etalon;

comparing the plurality of resonant frequencies of the etalon with a plurality of target resonant frequencies; and

selecting the etalon for application in an optical system based at least in part on a result of the comparison.

Claim 21 (original): The method of claim 20, wherein the target resonant frequencies comprise at least three periodic frequencies.

Claim 22 (original): The method of claim 20, wherein the target resonant frequencies comprise at least three quasi-periodic frequencies.

Claim 23 (original): The method of claim 20, wherein the length dispersion determination is based at least in part on a refractive index step of a dielectric stack of the etalon.

Claim 24 (original): The method of claim 20, wherein the length dispersion determination is based at least in part on a number of layers of a dielectric stack of the etalon.

Claim 25 (original): The method of claim 20, wherein the length dispersion determination is based at least in part on a thickness of layers of a dielectric stack of the etalon.